

Coding Curriculum – Curriculum Overview

	Autumn	Spring *Safer Internet Day in Term 3*	Summer
Class 1	Term 1 Teach Computing Moving a robot - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs	Term 3 Teach Computing Introduction to algorithms - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs	Term 5
Class 2	Terms 2 Robot algorithms - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs	Term 3 An introduction to quizzes - Understand what algorithms are; how they are implemented as programs on digital devices; and that programs execute by following precise and unambiguous instructions - Create and debug simple programs - Use logical reasoning to predict the behaviour of simple programs	Term 5
Class 3	Term 2 Teach Computing Sequences in Music - To explore a new programming environment - To identify that commands have an outcome - To explain that a program has a start - To recognise that a sequence of commands can have an order - To change the appearance of my project - To create a project from a task description	Term 4 Teach Computing Events and Actions - To explain how a sprite moves in an existing project - To create a program to move a sprite in four directions - To adapt a program to a new context - To develop my program by adding features - To identify and fix bugs in a program - To design and create a maze-based challenge	Term 5 & 6

Class 4	Terms 1 Teach Computing Repetition in shapes - To identify that accuracy in programming is important - To create a program in a text-based language - To explain what 'repeat' means - To modify a count-controlled loop to produce a given outcome - To decompose a task into small steps - To create a program that uses count-controlled loops to produce a given outcome	Term 3 & 4 Teach Computing Repetition in Games - To develop the use of count-controlled loops in a different programming environment - To explain that in programming there are infinite loops and count controlled loops - To develop a design that includes two or more loops which run at the same time - To modify an infinite loop in a given program - To design a project that includes repetition - To create a project that includes repetition	Term 5 & 6
Classes 5 & 6	Term 1 & Term 2 Selection in physical computing (Year A) - To control a simple circuit connected to a computer - To write a program that includes count-controlled loops - To explain that a loop can stop when a condition is met - To explain that a loop can be used to repeatedly check whether a condition has been met - To design a physical project that includes selection - To create a program that controls a physical computing project	Term 3 Selection in Quizzes Lessons 1-3 (Year A) - To explain how selection is used in computer programs - To relate that a conditional statement connects a condition to an outcome - To explain how selection directs the flow of a program	Term 6 Selection in Quizzes Lessons 4-6 (Year A) - To design a program which uses selection - To create a program which uses selection - To evaluate my program
Classes 5 & 6	Term 1 & Term 2 Variables in a game (Year B) - To define a 'variable' as something that is changeable - To explain why a variable is used in a program - To choose how to improve a game by using variables	Term 3 Sensing Lessons 1-3 (Year B) - To create a program to run on a controllable device - To explain that selection can control the flow of a program - To update a variable with a user input	Term 6 Sensing Lessons 4-6 (Year B) - To use a conditional statement to compare a variable to a value - To design a project that uses inputs and outputs on a controllable device

	• To design a project that builds on a given example • To use my design to create a project • To evaluate my project		
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